



Oklahoma State  
Department of Health

# Oklahoma Gonorrhea Cases in 2015

## FACT SHEET

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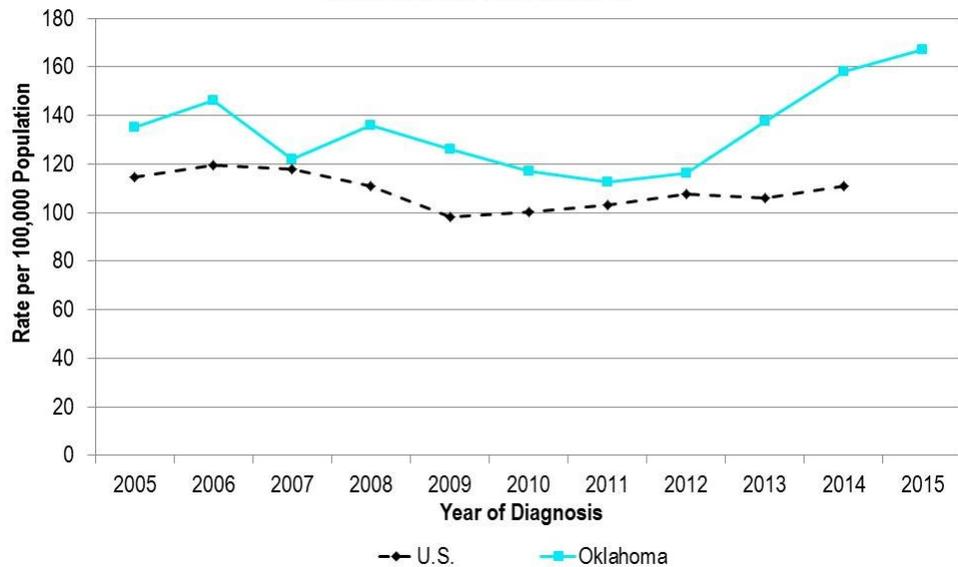
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Gonorrhea Rates per 100,000 Population,  
Oklahoma and U.S. 2005-2015\*\*



\*\*U.S. Data for 2015 not available at the time of this report.

### OVERVIEW

After chlamydia, gonorrhea is the second most prevalent sexually transmitted disease reported in Oklahoma. Gonorrhea is caused by *Neisseria gonorrhoea*, a bacterium that can grow and multiply in warm, moist areas of the reproductive tract, mouth, throat, eyes, and anus. In 2015, a total of 6,542 cases were reported in Oklahoma, approximately a 6.6% increase in the number of cases from 2014 (6,135). Oklahoma had an incidence rate of 167.3 cases per 100,000, a 5.8% rate increase compared to 2014 (158.2 per 100,000), a 21.5% rate increase compared to 2013 (137.7 per 100,000) and a 43.7% rate increase compared to 2012 (116.4 per 100,000).

### SYMPTOMS AND COMPLICATIONS

In females, gonorrhea can result in pelvic inflammatory disease, ectopic pregnancy, cervicitis, and eventually infertility. Pregnant females infected with gonorrhea can transmit the infection to their unborn babies during pregnancy or birth. In males, this infection most often manifests as purulent urethral discharge and dysuria, and can cause infertility.

### BY SEX

Over half, 54.7% (3,580), of the reported cases of gonorrhea in 2015 were among females, while males made up 45.3% (2,962). The rate among females (181.3 per 100,000) was 1.2 times higher than that of males (152.9 per 100,000). Both groups experienced a rate increase from 2014; females increased 2.8%, up from 3,451 cases at 176.3 per 100,000 and males increased 9.4%, up from 2,683 cases at 139.7 per 100,000.

### BY AGE

Highest rates among age groups in 2015:  
20 to 24 years – 802.5 per 100,000  
25 to 29 years – 509.0 per 100,000  
15 to 19 years – 499.7 per 100,000  
30 to 34 years – 274.7 per 100,000

Following the same pattern as last year, age groups 20 to 24 years (2,301 cases; 802.5 per 100,000) and 25 to 29 years (1,379 cases; 509.0 per 100,000) had the most cases and highest rates of all age groups. Age group 15 to 19 years had the third most cases and third highest rate (1,304 cases; 499.7 per 100,000). Age group 10 to 14 years

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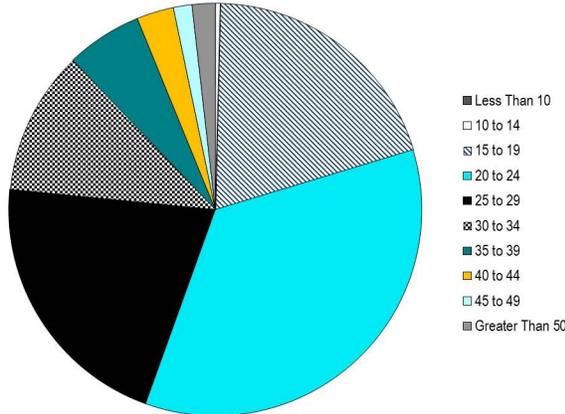
Choctaw County had the highest rate of gonorrhea in 2015, a 61.7% increase from 2014.

Blacks made up 34.9% of gonorrhea cases in Oklahoma, compared to 21.8% of chlamydia cases.

The rate of gonorrhea in Oklahoma increased 5.8% from 2014 to 2015.

and the less than 10 years age group were the only groups to experience rate decreases; all other age groups experienced rate increases from 2014 to 2015. Age group 40 to 44 years experienced the largest rate increase (25.3%; 65.3 to 81.8 per 100,000), followed by 35 to 39 year olds (15.3%; 138.7 to 159.9 per 100,000), and 30 to 34 year olds (10.9%; 247.7 to 274.7 per 100,000).

Gonorrhea by Age Group, Oklahoma 2015



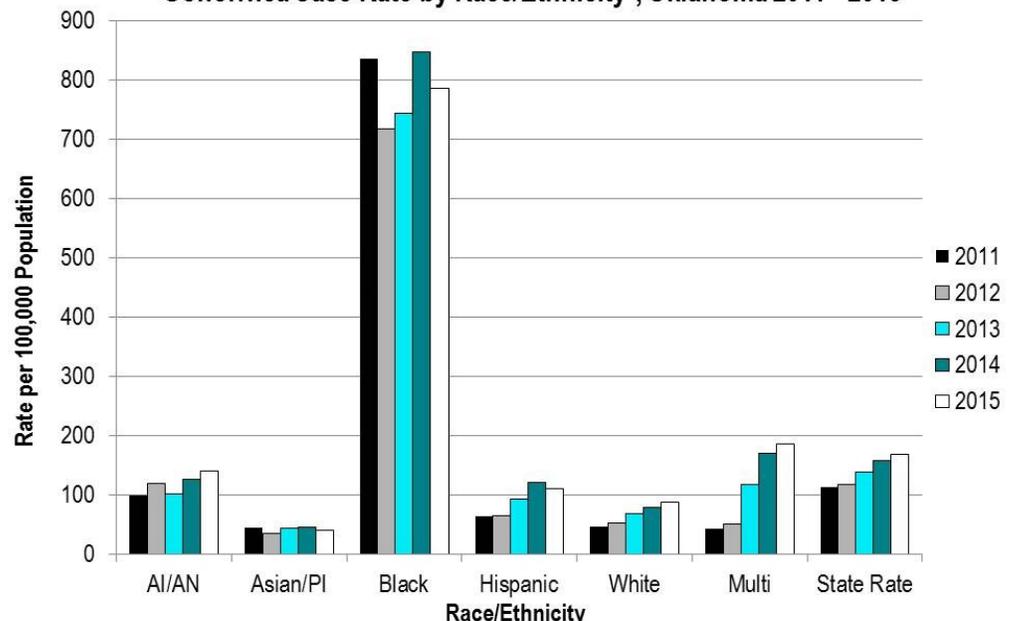
### BY RACE/ETHNICITY

Of the 6,542 gonorrhea cases:

- 34.9% (2,285) were Black,
- 34.9% (2,285) were White,
- 6.9% (452) were American Indian/Alaska Native,
- 6.7% (439) were Hispanic,
- 6.0% (393) were Multi Race,
- 0.5% (35) were Asian/Pacific Islander, and
- 10.0% (653) were categorized as Other/Unknown.

While Blacks and Whites had the same number of cases (2,285; 34.9%), Blacks had a rate almost 9 times the rate for Whites (785.9 compared to 87.8 per 100,000). For perspective, if there were 2,029 fewer cases among Blacks, the rate for Blacks would be equal to that of Whites. Those reporting Multi Race accounted for 6.0% (393) of cases and had the second highest rate (185.4 per 100,000). American Indians and Alaska Natives accounted for 6.9% (452) of cases and had the third highest rate (140.5 per 100,000).

Gonorrhea Case Rate by Race/Ethnicity\*, Oklahoma 2011 - 2015



\*Rates could not be calculated for unknown race.  
AI/AN stands for American Indian/Alaska Native  
Asian/PI stands for Asian/Pacific Islander



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Age group 40 to 44 years had the largest rate increase, 25.3%, from 2014.

51.9% of gonorrhea cases were appropriately treated in 2015.

### BY GEOGRAPHY

While only accounting for 0.7% (48) of the cases in 2015, Choctaw County had the highest rate at 320.1 per 100,000; this represents a 61.7% rate increase from 2014 (197.9 per 100,000). Muskogee County (208; 3.2%) had the second highest rate at 298.4 per 100,000. Comanche County had the third most cases (352; 5.4%) and third highest rate (282.4 per 100,000). Oklahoma County had the most cases in 2015 (1,846; 28.2%) and the 7<sup>th</sup> highest rate (237.6 per 100,000). Tulsa County had the second most cases (1,595; 24.4%) and the 5<sup>th</sup> highest rate (249.5 per 100,000).

The Oklahoma City Metropolitan Statistical Area (MSA; 2,403; 36.7%) and the Tulsa MSA (1,884; 28.8%), together, accounted for almost two-thirds (65.5%) of the gonorrhea cases in 2015. The Lawton MSA accounted for 5.5% (362) of the cases and 28.9% (1,893) were diagnosed in a county that was not part of an MSA.

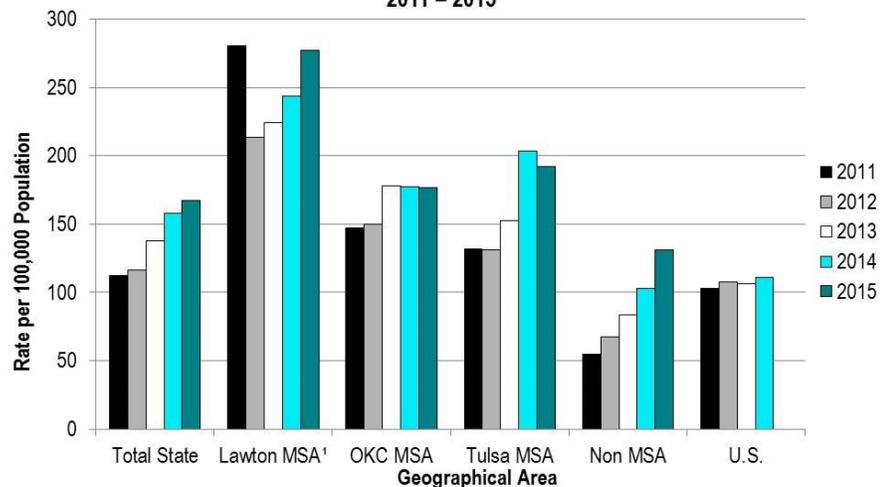
### BY TREATMENT INFORMATION

CDC released the 2015 Sexually Transmitted Diseases Treatment Guidelines in June 2015.

Due to the time frame of release, treatment for 2015 morbidities was assessed based upon the 2010 Sexually Transmitted Diseases Treatment Guidelines. According to the 2010 Sexually Transmitted Diseases Treatment Guidelines, the CDC recommends dual treatment therapy for gonococcal infection, not only in an effort to hinder the development of antibiotic resistant gonorrhea, but also because many patients with gonorrhea are co-infected with chlamydia. The recommended treatment therapy for gonorrhea is dual therapy of azithromycin (1 g PO) with ceftriaxone (250 mg IM). There are also alternative treatment regimens as well as specific considerations for pregnant females, infants and children.

Treatment of gonorrhea is the best way to avoid complications. In addition, a person's partner(s) with gonorrhea should receive appropriate treatment in order to avoid re-infection. Based on reported information, 51.9% (3,398) of the 6,542 gonorrhea cases were appropriately treated based on the CDC treatment guidelines. Because some laboratory reports may not have been reported by the physicians or providers of care, or are missing treatment information, it is likely that more patients were treated appropriately.

Gonorrhea Among Oklahoma MSAs and U.S., 2011 – 2015\*



\*National data for 2015 not available at time of this report.  
<sup>1</sup>For 2015 data, Lawton MSA included both Comanche County and Caddo County. Previously, this MSA only included Comanche County.

# Oklahoma Gonorrhea Cases in 2015

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### Top Ten Counties with Largest Number of Gonorrhea Cases, Oklahoma 2015

County	Number	Rate	% Rate Change from 2014
Oklahoma	1,846	237.6	-1.7
Tulsa	1,595	249.5	-5.6
Comanche	352	282.4	15.8
Cleveland	257	93.6	8.0
Muskogee	208	298.4	26.5
Carter	127	260.8	26.1
Payne	118	145.9	30.2
Stephens	102	228.8	99.7

### Top Ten Counties with Highest Rates of Gonorrhea, Oklahoma 2015

County	Number	Rate	% Rate Change from 2014
Choctaw	48	320.1	61.7
Muskogee	208	298.4	26.5
Comanche	352	282.4	15.8
Carter	127	260.8	26.1
Tulsa	1,595	249.5	-5.6
Jackson	62	242.4	50.0
Oklahoma	1,846	237.6	-1.7
Stephens	102	228.8	99.7